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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/678,105

10/06/2003

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EXAMINER

FAROUL, FARAH

ART UNIT

PAPER NUMBER

2616

MAIL DATE

DELIVERY MODE

05/08/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/678,105

Applicant(s)

KAWAGUCHI ET AL.

Examiner

Farah Faroul

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date See Continuation Sheet
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :4/26/2004, 10/20/2005 and 6/13/2006.

DETAILED ACTION

1. The following office action is based on the preliminary amendment filed on November 30, 2006 having claims 1-64 and Figures 1-9.

Drawings

2. The drawings are objected to because Figure 8 should be labeled "prior art" and Figures 1-9 lack a descriptive legend for the acronyms PS, CS, MSC, SGSN, RRC, MBMS, UE, SCCP, CR, CC, RNC, DT1, GGSN, RLSD, RLC, RAB, UDT. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Information Disclosure Statement

3. The information disclosure statement filed on June 13, 2006 fails to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Applicant fails to provide a copy of the non-patent literature documents entitled "Samsung, Sharing lu control bearer for MBMS" and "MBMS architecture aspects".

Specification

4. The abstract of the disclosure is objected to because of the following informalities:

The acronym MBMS found in lines 3, 9 and 10 of the abstract should be changed to Multimedia Broadcast Multicast Service (MBMS) in all lines.

The acronym SGSN found in lines 6 and 17 should be changed to Serving GPRS (General Packet Radio Service) Support Node (SGSN) in all lines.

The acronym PS in line 12 of the abstract should be changed to Packet Switching (PS).

Correction is required. See MPEP § 608.01(b).

Claim Objections

5. Claims 7-8, 49, 57, 62 and 64 objected to because of the following informalities:

In claims 7-8, the acronym PS should be changed to packet switching (PS).

For claims 49 and 57, it is suggested that applicant change the acronym PS to packet switching (PS) and that applicant clarify the limitation "PS lu connection" within the claims.

In claim 62, the acronym SGSN found in line 10 should be changed to Serving GPRS (General Packet Radio Service) Support Node (SGSN).

In claim 64, the acronym SGSN found in line 10 should be changed to Serving GPRS (General Packet Radio Service) Support Node (SGSN).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 9, 21, 45, 53, and 61-64 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In Claims 1, 9, 21, 45, 53, and 61-64, the limitation "multicast data communication faster than the packet data communication" renders the claim indefinite. It is suggested that applicant clearly define how the multicast data communication is faster than the packet data communication in the claims.

Claim Rejections - 35 USC § 101

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 21-26 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The limitations "a computer-readable program" in claim 21 and "the program" in claims 22-26 are directed towards non-statutory subject matter. The limitations should be changed to "a computer-readable medium encoded with computer-executable instructions".

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent

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granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-64 are rejected under 35 U.S.C. 102(e) as being anticipated by Xu et al. (US 2006/0166653 A1).

For claims 1, 9, 15, 21, 27, 33, 39, 45-46, 53-54, and 61-64, Xu discloses a mobile communication system including a core network having a node with a packet switching function for packet data communication, a radio network controller, and a mobile terminal, wherein a connection is set on an interface between the radio network controller and the node (Figure 1 depicts a core network (20) having an SGSN (123) node connected to a radio network controller (112) and a mobile station),

The mobile communication system comprising: connection setting means for setting the connection for multicast data communication separately from the connection for the packet data communication (Figure 1, elements 123 and 150 shows separate connections for packet switching and multicast service and paragraph 37, line 1 to paragraph 38, line 11)

For claims 2, 10, 16, 22, 28, 34, and 40, Xu discloses the connection setting means for setting the connection for the multicast data communication in common to a plurality of mobile terminals that attempt to receive the multicast data communication service (paragraph 34, lines 1-16, paragraph 40, lines 1-10 wherein the connection is set up for plural mobile stations to receive the multicast service)

For claims 3, 11, 17, 23, 29, 35, 41, 51, and 59, Xu discloses the connection means for setting the connection for the multicast data communication in response to a

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service receiving request from a first mobile terminal attempting to receive the multicast data communication service (paragraph 40, line 1 to paragraph 42, line 13 wherein connection for multicast service is set up after the mobile station sends a "joining" request or service receiving request)

For claims 4, 12, 18, 24, 30, 36, 42, 52 and 60, Xu discloses a first connection releasing means for releasing the connection for the multicast data communication in response to a service leaving request from a last mobile terminal receiving the multicast data communication service (paragraph 61, line 1 to paragraph 64, line 6 wherein multicast connection is released after a "cell leave" message is sent by the mobile station)

For claims 5, 13, 19, 25, 31, 37 and 43, Xu discloses the connection setting means for setting the connection for multicast for the multicast data communication individually to each of the plurality of the mobile terminals that attempt to receive the multicast data communication service (paragraph 43, line 1 to paragraph 44, line 5 wherein the multicast connection is set up for each mobile station individually)

For claims 6, 14, 20, 26, 32, 38 and 44, Xu discloses a second connection for, in response to the multicast data communication service leaving request from each of the plurality of mobile terminals, releasing the connection for the multicast data communication corresponding to the mobile terminal (paragraph 61, line 1 to paragraph 64, line 6 wherein multicast connection is released after a "cell leave" message is sent by a mobile station from a plurality of mobile stations)

For claim 7, Xu discloses the connection for multicast data communication in the mobile terminal is managed in a PS domain including an area for the packet switching function in the core network (paragraph 34, line 1 to paragraph 36, line 6 and Fig 1, element 150 wherein the broadcast-multicast service center is in the PS domain area)

For claim 8, Xu discloses the connection for the multicast data communication in the mobile terminal is managed in a domain dedicated to the multicast data communication which is different from the PS domain including the area for the packet switching function in the core network (paragraph 34, line 1 to paragraph 36, line 6 and (paragraph 34, line 1 to paragraph 36, line 6 and Fig 1, element 150 wherein the broadcast-multicast service center is separate from the PS domain)

For claim 47 and 55, Xu discloses the second communications service comprises a multimedia broadcast multicast service (MBMS) (figure 1, element 150, wherein the broadcast-multicast service center provides MBMS Service, paragraph 38, lines 1-13)

For claims 48 and 56, Xu discloses the first communications service comprises a packet switching (PS) service (paragraph 34, line 1 to paragraph 36, line 6, Fig 1, element 123 provides packet switching service)

For claims 49 and 57, Xu discloses the first signaling connection comprises a PS lu connection (paragraph 34, line 1 to paragraph 36, line 6, Figure 1, elements 112 and 123, see connection between SGSN and radio network controller)

For claims 50 and 58, Xu discloses the first communications service comprises a circuit switching (CS) service (paragraph 34, line 1 to paragraph 36, line 6, Figure 1, element 121 wherein MSC/VLR provides circuit switching service).

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Manish et al. (US 7,075,904 B1) and Sarkkinen et al. (US 2003/0211855 A1) are cited to show systems pertinent to applicant's invention. Manish discloses a system and method for multicasting messages to select recipients. Sarkkinen discloses a method and system for separating control information and user data from multicast and broadcast services.

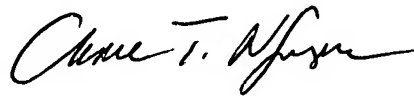
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Farah Faroul whose telephone number is 571-270-1421. The examiner can normally be reached on Monday - Friday 6:30 AM - 4 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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